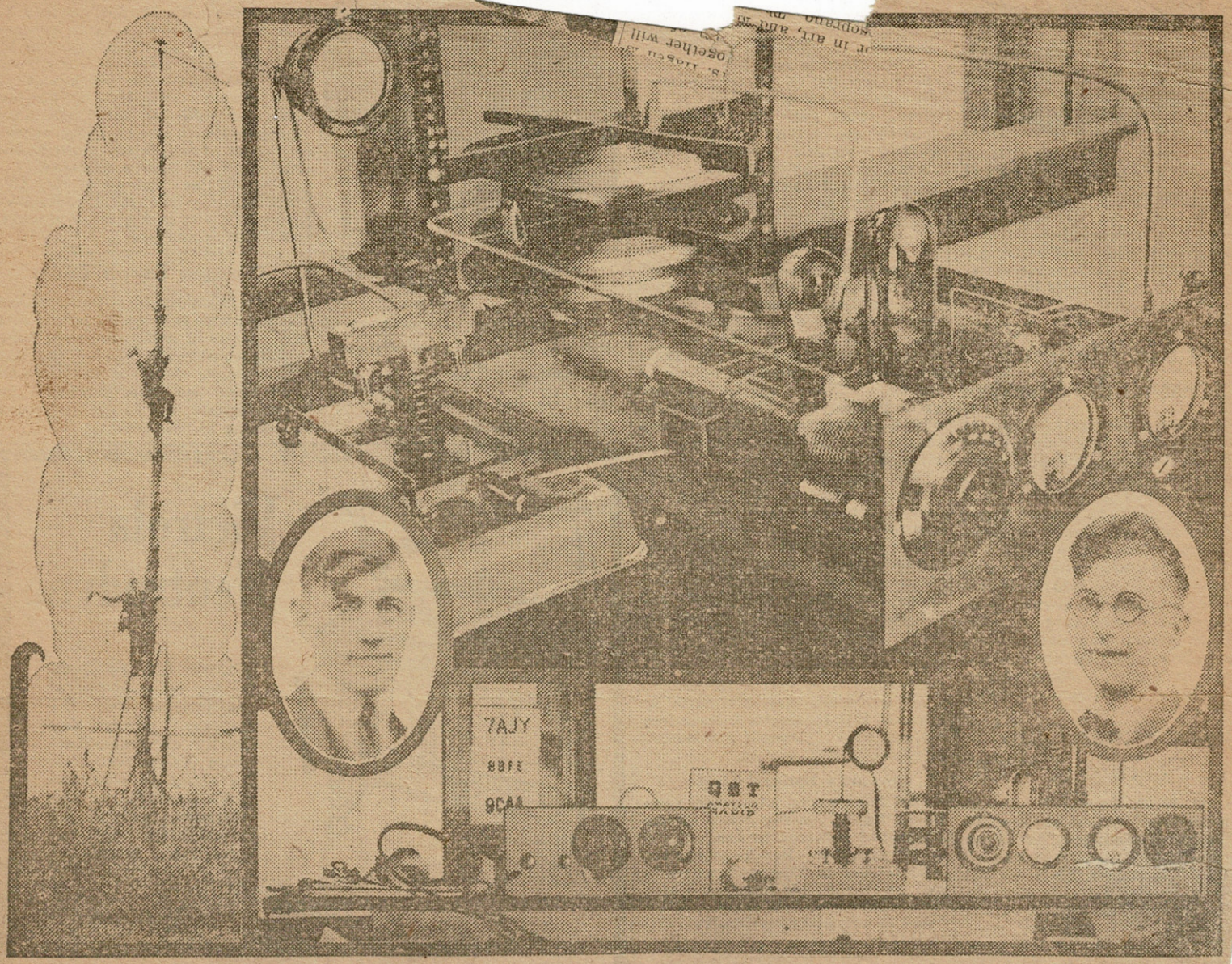

An Amateur Station That Really Serves

Amateur radio station 9DTK-9CMP is owned and operated by Fred W. Catel (at left above) and Charles S. Polacheck (right above), members of the American Radio Relay league and officers of its local section, the Milwaukee Radio Amateurs' club. Situated at the head of Kenwood-blvd, overlooking Lake Michigan, the installation has been made to take advantage of the natural advantages. A 50-foot pine pole, embedded in three feet of concrete under three feet of earth, supports the antenna wires.

As a symbol that the operators are full-fledged members of the "Loyal Order of the Derby" and as a watershed to prevent rotting of the pole, the mast is surmounted by a trench helmet. When the branches were removed, short stumps were left as steps. A coin, the elements of a vacuum tube, and documents relating the purposes and circumstances of the erection of the mast were sealed in the concrete base.

The antenna, composed of enameled copper wire, insulated with 18-inch glass bars, is swung from a 12-foot spreader and slants down to a similar support eight feet wide directly above the transmitter. Directly beneath the antenna and at a height of 10 feet is spread a five-wire fan-type counterpoise, using the same materials as the overhead wires. Leads from both of these elements are made of three-fourth-inch brass tubing supported entirely by glass rods and entering the station through holes shot into the window panes. The antenna ammeter is supported by the leads so as not to introduce further losses, and it is provided with a shorting switch to remove it from the circuit when readings are not being made.

A unique change-over switch is employed, mounted on a pyrex glass base. All leads in the high frequency circuits of the transmitter are made of one-fourth-inch brass tubing. The transmitter proper is built to use either five or 50-watt tubes. A maximum power of 100 watts can be employed. Connected in a three-coil Meissner circuit and built with high efficiency and low losses in mind, this apparatus, which is used entirely for transmission of code messages, is remarkably modern.

The receiver is a low loss regenerative set, employing one stage of audio frequency amplification. It is built to accommodate various sizes of airwound coils so that it may be used on any wavelength band, but most particularly for the amateur waves.

The station sends out continuous wave (CW) signals on a wavelength of 78 meters, but can be changed to operate on 156 meters within a few seconds. An official relay station of the American Radio Relay league this station handles a large number of free citizen radio messages every month. Every noon it transmits to WLBL, Wisconsin department of markets station, at Stevens Point the Milwaukee produce market reports. Fred W. Catel, secretary of the Milwaukee Radio Amateurs club, and Charles S. Polacheck, vice president and business manager of that organization, have exchanged messages with amateurs in all nine of the United States radio districts.